AMENDMENTS TO THE CLAIMS

1. **(Withdrawn)** An isolated or purified polynucleotide encoding a mutant mouse parkin2 protein, or a homolog thereof, wherein said mutant causes symptoms of Parkinson's disease.

2. **(Canceled)**

3. **(Withdrawn)** The polynucleotide of claim 1, wherein said polynucleotide is selected from the group consisting of: SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, and SEQ ID NO: 20.

4. **(Withdrawn)** A vector, comprising the polynucleotide of claim 1.

5. **(Withdrawn)** A cell, comprising the polynucleotide of claim 1.

6. **(Withdrawn)** The cell of claim 5, wherein the cell is a prokaryotic or a eukaryotic cell.

7. **(Withdrawn)** A parkin mouse protein, comprising any amino acid sequence selected from the group consisting of: SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, and SEQ ID NO: 34.

8. **(Currently amended)** A transgenic mouse ~~or rat~~ comprising a polynucleotide encoding a mutant mouse parkin2 protein, ~~or a homolog~~ ~~thereof~~, said polynucleotide comprising a mutation in SEQ ID NO: 1 as set forth in Table 1 or 2~~, wherein said mutation causes symptoms of Parkinson's disease when said mutation is present in a human polynucleotide homologous to a polynucleotide of SEQ ID NO: 1~~.

9. **(Canceled)**

10. **(Canceled)**

11. **(Canceled)**

12. **(Canceled)**

13. **(Withdrawn)** A mammalian cell-line transformed or transfected with the polynucleotide of claim 1.

14. **(Currently amended)** A method of producing a transgenic mouse ~~or rat~~, comprising:

constructing a vector that carries an isolated or purified polynucleotide encoding a mutant mouse parkin2 protein, ~~or a homolog thereof~~, said polynucleotide comprising a mutation in SEQ ID NO: 1 as set fourth in Table 1 or 2~~, wherein said mutation causes symptoms of Parkinson's disease when said mutation is present in a human polynucleotide homologous to a polynucleotide of SEQ ID NO: 1~~;

introducing said vector into embryonic stem cells;

injecting said embryonic stem cells into blastocysts;

placing said blastocysts into a pseudopregnant female mouse ~~or rat~~ thereby impregnating said female; ~~and~~

obtaining a pup as a result of such impregnation, wherein said pup is a chimeric mouse ~~or rat~~, and

mating said chimeric mouse or rat thereby producing the transgenic mouse.

15. **(Currently amended)** A mammalian model for a neurodegenerative disease comprising the transgenic mouse ~~or rat~~ of claim 8.

16. **(Canceled)**

17. **(Withdrawn)** A method for testing the efficacy of a treatment for a neurodegenerative disease, comprising:

subjecting the mammalian model of claim 15 to a putative treatment or agent; and

determining the efficacy of said treatment by identifying a reduction in the symptoms of said neurodegenerative disease.

18. **(Withdrawn)** The method of claim 17, wherein said neurodegenerative disease is selected from the group consisting of: Parkinson's disease, Alzheimer's disease, Huntington's disease, amyotrophic lateral sclerosis, Multisystem atrophy, Wilson's disease, Pick's disease, and Prion disease.

19. **(Canceled)**

20. **(Withdrawn)** A method for testing whether an active substance is useful for treating the symptoms of Parkinson's disease comprising:

administering said active substance to the transgenic animal of claim 8; and

determining whether said active substance reduces the symptoms of Parkinson's disease.

21. **(Canceled)**

22. **(Currently amended)** A ~~descendant of the transgenic mouse or rat~~ method according to claim 14 ~~8~~, ~~wherein said~~ further comprising obtaining a descendant of the transgenic mouse ~~is obtained~~ by breeding said transgenic mouse ~~or rat~~ with the same or any other genotype and wherein said descendant of the transgenic mouse ~~or rat~~ comprises a mutant mouse parkin2 protein wherein said mutant is set forth in Table 1 or 2 ~~or a homologue thereof~~.

23. **(Withdrawn)** The polynucleotide of claim 1, wherein said mutant comprises a point mutation, deletion or fragment.

24. **(Withdrawn)** The polynucleotide of claim 1, wherein said homolog is human.

25. **(Withdrawn)** The cell of claim 5, wherein said eukaryotic cell is a fungal, insect or mammalian cell.

26. **(Withdrawn)** The cell of claim 25, wherein said fungal cell is a yeast cell.

27. **(Withdrawn)** The cell of claim 25, wherein said prokaryotic cell is a bacterial cell.

28. **(Withdrawn)** The polynucleotide of claim 1, wherein said mutants comprise mutations in exon 1 or exon 3.

29. **(Canceled)**

30. **(Withdrawn)** A method of testing agents for efficacy and toxicity in treating a neurodegenerative disease, comprising:

administering said agent to the mammalian model of claim 15; and

identifying whether said agent reduces the symptoms of said neurodegenerative disease or is toxic to said mammal.

31. **(Withdrawn)** A method for testing whether an active substance is useful for treating the symptoms of Parkinson's disease, comprising:

administering said active substance to the cell-line of claim 13; and

determining whether said active substance reduces the symptoms of Parkinson's disease.

32. **(Withdrawn)** The method of claim 20, further comprising testing various dosages of said active substance.

33. **(Currently amended)** The transgenic mouse ~~or rat~~ of Claim 8, wherein said mutation is present in at least one of Exons 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 or 12 of SEQ ID NO: 1.

34. **(Previously presented)** The method of Claim 14, wherein said mutation is present in at least one of Exons 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 or 12 of SEQ ID NO: 1.

35. **(Canceled)**

36. **(Canceled)**

37. **(Currently amended)** The transgenic mouse ~~or rat~~ of Claim 33, wherein said mutation in Exon 4 is a frame-shift mutation.

38. **(Previously presented)** The method of Claim 34, wherein said mutation in Exon 4 is a frame-shift mutation.

SUMMARY OF INTERVIEW

Exhibits and/or Demonstrations

None

Identification of Claims Discussed

8, 14, 15, 22, 33, 34, and 36-38

Identification of Prior Art Discussed

None

Proposed Amendments

None

Principal Arguments and Other Matters

Discussed the enablement of the above-identified claims.

Results of Interview

The Examiner indicated that the submission of data in the form of a Declaration would be helpful to resolve the enablement issues.